June 21, 2017

Re: NYC Intro Bill No. 1629 Public Hearing Notice

To: All Building Efficiency, Passive House, Health, Affordability, Social Justice and Climate Protection Advocates.

From: The New York Passive House (NYPH) Board of Directors

Dear Advocates,

There will be **a public hearing at 1pm, on Tuesday June 27th, 2017, in the Committee Room at City Hall**, on NYC Council Intro Bill No 1629-2017. The bill will require that large buildings newly constructed or substantially retrofitted meet very low energy/Passive House targets starting in 2025, with increasing intermediate efficiency requirements leading to 2025.

The board of directors of New York Passive House (NYPH) ask for your attendance at the hearing, and your testimony in support of this important bill.

<u>There are many reasons why this bill should be vigorously supported:</u>

1. **Climate protection**: Buildings make up over 70% of carbon emissions in New York City. To achieve the city's policy of 80% carbon reductions by 2050, drastic reductions in building energy use intensity are required. This bill helps deliver those needed reductions essential to maintaining a livable climate and stable coastlines.

2. **Resilience**: Very low energy and Passive House buildings significantly increase resilience capacity by allowing occupants to shelter in place for extend periods of time, without power, during extremes of cold and hot weather.
3. **Affordability**: Very low energy and Passive House buildings are being built affordably with increases in cost of only approximately 3-5%. And this construction results in heating and cooling energy use reductions of up to 90% from typical buildings. By substantially lowering operating expenses, the risk of rapidly rising and unaffordable energy costs are lowered too. This provides building owners and occupants greater financial security and a better standard of living.
4. **Health and Well Being**: With airtight construction and filtered fresh ventilation air, very low energy and Passive House buildings provide improved indoor air quality and acoustic comfort. This is particularly beneficial for at risk populations such as children and the elderly, and for those living in areas of the city that have greater concentrations of air pollution.
5. **Jobs**: Very low energy and Passive House buildings require increased attention to enclosure construction and the installation of insulation, airtightness and high quality windows. These are local jobs that cannot be outsourced. With a few days training our existing construction workforce can competently execute - at the higher level of quality needed - these buildings.
6. **Social Justice**: Very low energy and Passive House buildings supports greater social justice. New skilled construction jobs, healthier indoor environments, storm resilience and lower ongoing operational costs, all serve to protect and serve the most vulnerable populations of our city.
7. **Long term growth and sustainability**: With up-training workers for more skilled jobs, making buildings that are healthier and more comfortable, while eliminating wasted expenditures on energy - Passive House and very low energy buildings are a cornerstone to New York City's long term growth and sustainability.
8. **Support of fast growing professional community to implement**: With the increased attention on, and demand for, Passive House and very low energy buildings, there are ongoing and expanding local training opportunities for professionals such as architects, engineers and contractors. This growing, highly trained professional community is ready to meet the challenges of implementation.
9. **Will not be subject to unfeasible mandates**: As written, if for particular building types or occupancies, such low energy targets are determined to be unfeasible, there is a mechanism to adjust those targets - removing the threat of unmanageable requirements. In the interim years, we can collect the data on costs, occupant satisfaction and energy use, and move forward confidently.
10. **A step in the right direction**: While this bill only addresses part of New York City's building stock, it is a significant segment of buildings. We look forward to working with New York City to extend the benefits of very low energy and Passive House buildings to all New York City building sizes and types in the future.

Our brief outline of the bill is as follows (actual bill follows):

The bill sets out to put large private buildings on a trajectory toward Passive House levels of performance.

The bill applies to Covered Buildings:

As it appears in the records of the department of finance: (i) a building that exceeds 25,000 gross square feet, (ii) two or more buildings on the same tax lot that together exceed 100,000 gross square feet, (iii) two or more buildings held in the condominium form of ownership that are governed by the same board of managers and that together exceed 100,000 gross square feet, or (iv) a city building.

Exceptions: *The term "covered building" shall not include:*

1. *Any building owned by the city that participates in the tenant interim lease apartment purchase program.*
2. *Real property classified as class one pursuant to subdivision one of section 1802 of the real property tax law.*
3. *Real property, not more than three stories, consisting of a series of attached, detached or semi-detached dwellings, for which ownership and the responsibility for maintenance of the HVAC systems and hot water heating systems is held by each individual dwelling unit owner, and with no HVAC system or hot water heating system in the series serving more than two dwelling units, as certified by a registered design professional to the department.*

The bill defines a LOW ENERGY INTENSITY TARGET:

The term “low energy intensity target” means:

1. For a building that is not classified in occupancy groups F or H, the less stringent of (i) 30 percent below the energy use intensity baseline or (ii) for new buildings, a source energy use intensity of 38 kBTU/yr per square foot of floor area and for substantial reconstructions of existing buildings, a source energy use intensity of 42 kBTU/yr per square foot of floor area;
2. For a building classified in occupancy groups F or H, energy usage of the base building systems, exclusive of process loads, which is at least 30 percent less than such energy usage would be if such building were designed and constructed according to ASHRAE 90.1-2013.

The bill defines a source energy use intensity (EUI) baseline of either the median EUI for buildings with similar uses per LL84 benchmarking for the prior year or the EUI that would be required by ASHRAE 90.1-2013.

The bill references 38 kBTU/yr and 42 kBTU/yr, which roughly conform with the Passive House Standard for new build and substantial retrofits respectively.

The bill establishes that starting January 1, 2025 new build and substantial retrofits would be required to be constructed as a Low Energy Intensity Building.

The bill, to enable this goal for 2025, sets out a series of Stretch Code updates to be submitted in 2019 and 2022 tightening efficiency requirements for covered buildings.

The bill provides an escape hatch: that in 2022 or after, the Head of the office of Long-term Planning and Sustainability can determine whether the updates, including the final Low Energy Intensity Building target, are practical and propose amendments to lessen the targets if required..

A Call to Action

Based on the intent of the bill, it is incumbent upon us to demonstrate in these next 5 years that the targets are practical. And if there are particular occupancy types where the targets are not 100% practical, then we must work in these coming years to establish a practical low intensity target number for those too. To successfully address our climate crisis we cannot leave any buildings behind.

We look forward to working with you to pass this important bill into law and hope to see and hear from you this coming Tuesday.

Sincerely,

The New York Passive House (NYPH) Board of Directors:

Andreas Benzing, President
Stas Zakrzewski, Treasurer
Todd Kimmel, Secretary
Ken Levenson, Vice President
Kevin Brennan, Vice President
Amy Schaeffer, Vice President
Buck Moorhead, Vice President
Ilana Judah, Vice President
Lois Arena
Greg Duncan
Philip Hayes
Jeremy Shannon

ATTACHMENT

Title:	A Local Law to amend the administrative code of the city of New York, in relation to requiring periodic recommendations on adoption of a more stringent energy efficiency requirements for buildings and energy use intensity requirements for new and substantially reconstructed buildings
Sponsors:	Costa G. Constantinides, Donovan J. Richards, Corey D. Johnson, Mark Treyger, Stephen T. Levin, Helen K. Rosenthal, Margaret S. Chin
Summary:	This bill would require the Administration to periodically submit recommendations to the Council regarding a more stringent energy code. The bill would also require that, beginning in 2025, larger buildings are newly built or that undergo substantial reconstruction would need to be designed and constructed as low energy intensity buildings.

Int. No. 1629

By Council Members Constantinides, Richards, Johnson, Treyger, Levin, Rosenthal, and Chin

A Local Law to amend the administrative code of the city of New York, in relation to requiring periodic recommendations on adoption of a more stringent energy efficiency requirements for buildings and energy use intensity requirements for new and substantially reconstructed buildings

Be it enacted by the Council as follows:

Section 1. Section 28-1001.1.1 of the administrative code of the city of New York is amended to read as follows:

§ 28-1001.1.1 [Definition] Definitions. As used in this [chapter, the] chapter:

ASHRAE 90.1-2013. The term "ASHRAE 90.1-2013" means the 2013 edition of the energy standard for buildings except low-rise residential buildings, standard reference number 90.1-2013, published by the American society of heating, refrigerating and air conditioning engineers (ASHRAE).

BASE BUILDING SYSTEMS. The term "base building systems" has the same meaning as set forth in section 28-308.1 of this code.

COVERED BUILDING. The term "covered building" shall have the same definition as set forth in section 28-309.2 of this code.

DESIGN ENERGY USE INTENSITY. The term "design energy use intensity" means, for a building, the source energy use intensity projected for such building based on its design at the time of filing with the commissioner.

ENERGY USE INTENSITY BASELINE. The term "energy use intensity baseline" means, for a building either:

1. The median source energy use intensity for buildings designed and constructed for similar uses according to benchmarking data obtained under article 309 of title 28 of the administrative code within the year preceding the effective date of the local law that added this paragraph; or

2. The design energy use intensity of such building if designed and constructed according to the prescriptive and mandatory requirements of ASHRAE 90.1-2013.

LOW ENERGY INTENSITY BUILDING. The term "low energy intensity building" means:

1. A building that is not classified in occupancy groups F or H and that has been designed and constructed such that its design energy use intensity is equal to or less than (i) the low energy intensity target for such building or (ii) if an alternative low energy intensity target has been adopted pursuant to paragraph (3) of subdivision b of section 224.1 of the New York city charter and such target would apply to such building if such building were subject to such subdivision, such alternative target; or

2. A building that is classified in occupancy groups F or H and that has been designed and constructed such that:

2.1. The energy usage of its base building systems, exclusive of process loads, is equal to or less than the low energy intensity target for such building, or, if an alternative low energy intensity target has been adopted pursuant to paragraph (3) of subdivision b of section 224.1 of the New York city charter and such target would apply to such building if such building were subject to such section, such alternative target; or

2.2. The design energy use intensity of such building is at least 50 percent below the median source energy use intensity for buildings designed and constructed for similar uses according to benchmarking data obtained under article 309 of title 28 of the administrative code within the year preceding the effective date of the local law that added this paragraph.

LOW ENERGY INTENSITY TARGET. The term "low energy intensity target" means:

1. For a building that is not classified in occupancy groups F or H, the less stringent of (i) 30 percent below the energy use intensity baseline or (ii) for new buildings, a source energy use intensity of 38 kBTU/yr per square foot of floor area and for substantial reconstructions of existing buildings, a source energy use intensity of 42 kBTU/yr per square foot of floor area;

2. For a building classified in occupancy groups F or H, energy usage of the base building systems, exclusive of process loads, which is at least 30 percent less than such energy usage would be if such building were designed and constructed according to ASHRAE 90.1-2013.

NEW YORK STATE ENERGY CODE. The term "New York State Energy Code" means the New York State Energy Conservation Construction Code (the "New York State Energy Code"), constituting part 1240 of title 19 of the New York codes, rules and regulations (19 NYCRR Part 1240), and the publications incorporated by reference in such part, promulgated on September 21, 2016, by the State Fire Prevention and Building Code Council pursuant to Article 11 of the New York State Energy Law.

QUALIFIED ENERGY SOURCE. The term "qualified energy source" means a source of energy that is:

1. A qualified energy resource, as such term is defined in section 45 of title 26 of the United States code in effect on January 1, 2017;

2. A source that is determined to be renewable by the commissioner or the head of another agency or office designated by the mayor; or

3. A source that is determined by the commissioner or the head of another agency or office designated by the mayor to have (i) a positive environmental impact or (ii) a substantially lower negative environmental impact than sources of energy other than those identified pursuant to paragraph 1 or 2 of this definition.

SOURCE ENERGY USE INTENSITY. The term "source energy use intensity" means, for a building, the amount obtained by dividing (i) total energy used by such building in a year, other than energy generated from qualified energy sources, including losses that take place during generation, transmission and distribution of such energy, expressed in thousand British thermal units per year (kBTU/yr) and weather-normalized in a manner that is establish by the commissioner or the head of another agency or office designated by the mayor and consistent with the United States environmental protection agency portfolio manager, by (ii) the building's gross floor area.

SUBSTANTIAL RECONSTRUCTION. The term "substantial reconstruction" means any repair, reconstruction, addition or improvement of a building, if the cost of such work equals or exceeds 50 percent of the market value of such building before such work is started and such work involves substantial work on the building envelope.

§ 2. Chapter 10 of title 28 of the administrative code of the city of New York is amended by adding new sections 28-1001.3.3 and 28-1001.3.4 to read as follows:

§ 28-1001.3.3 Stretch energy code. When the commissioner submits proposed amendments to this code to the city council pursuant to section 28-1001.3.1, the head of the office of long-term planning and sustainability, in consultation with the commissioner and the New York city energy conservation code advisory committee established pursuant to

section 28-1001.3.2, shall for the first proposed amendments submitted to the city council pursuant to section 28-1001.3.1 in or after 2019, and for the first proposed amendments submitted to the city council pursuant to such section in or after 2022:

1. Submit to the city council proposed amendments to this code, or to the proposed amendments submitted by the commissioner, to bring this code up to date with the most recent model stretch code published by the New York state energy research and development authority, provided that such model stretch code is more stringent than the New York State Energy Code in effect when such proposed amendments are submitted and provided further that such model stretch code was published on or after three years before such proposed amendments are submitted;

2. If no such model stretch code exists at the time such amendments are to be submitted, such head, in consultation with the commissioner and such advisory committee, shall at such time submit to the city council proposed amendments to this code, or to the proposed amendments submitted by the commissioner, to ensure that the source energy use intensity of buildings designed and constructed in compliance with this code is at least 20 percent less than the source energy use intensity of buildings designed and constructed in compliance with the New York State Energy Code; or

3. If no such model stretch code exists and the head of the office of long-term planning and sustainability determines that proposed amendments to this code to achieve compliance with item 2 would render the design and construction of buildings impracticable or unduly burdensome, such head shall submit to the city council proposed amendments to ensure that the source energy use intensity of buildings designed and constructed in compliance with this code is, to the fullest extent practicable, less than the source energy use intensity of buildings designed and constructed in compliance with the New York State Energy Code, provided that such head shall submit together with such proposed amendments a report describing (i) why proposed amendments to achieve compliance with such item would render the design and construction of buildings impracticable or unduly burdensome and (ii) the estimated percentage by which the source energy use intensity of buildings designed and constructed in compliance with the amendments proposed by the commissioner would be less than the source energy use intensity of buildings designed and constructed in compliance with the New York State Energy Code.

§ 28-1001.3.4 Low energy intensity buildings. Beginning January 1, 2025, each (i) new building that would, upon completion, be a covered building and (ii) existing building undergoing substantial reconstruction that would, upon completion of such work, be a covered building, shall be designed and constructed as a low energy intensity building.

§ 3. This local law takes effect immediately.

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